

wherein each mop carrier wing (6) has an interior surface (7) having water drain grooves (11) which run toward and extend to the slanted side edge (8), said grooves (11) extending between the interior surface and a point between the interior surface (7) and an opposite mop carrier wing surface.

## **REMARKS**

### **I. Introduction**

Claims 1, 2 and 4 to 10 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

### **II. Claim Objections**

Claims 4 to 7, 9 and 10 were objected to because of various alleged informalities. Regarding claim 4, Applicant submits that given the grooves run on the interior surface of the wing it is reasonably clear that the grooves do not run all the way through the wing. Regarding claim 9, Applicant submits that it is reasonably clear that a point between the interior surface and opposite mop carrier wing surface is within the thickness of the wing.

### **III. Rejection of Claims 1 and 2 Under 35 U.S.C. § 103(a)**

Claims 1 and 2 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of U.S. Patent No. 5,896,613 ("Courtney et al.") and U.S. Patent No. 5,625,918 ("Kieson et al."). Applicant respectfully submits that claims 1 and 2 are allowable for at least the following reasons.

Claim 1 relates to a wet floor wiping device. Claim 1 recites that the wiping device includes a mop made of absorbent material, a mop frame including a center carrier piece attached to a handle and two quadrilateral shaped mop carrier wings. Claim 1 recites that each wing is pivotably mounted by a hinge edge of the center carrier piece. Claim 1 further recites that the carrier wings have inner surfaces which carry the mop and which can be pressed against each other by way of squeezing. Claim 1 further recites that at least one (8) of two side edges (8, 9) extending from the hinge edge (5) is slanted toward the opposite side edge (9).

Claim 1 has been amended to recite that the carrier wings include water drain grooves (11) configured to guide water to the slanted side edge (8).

Claim 2 depends from claim 1 and further recites that each mop carrier wing (6) forms a trapezoid with an included right angle, the larger base line of which forms the hinge edge (5).

Courtney et al. purportedly relate to a floor mop with a scrub strip. Courtney et al. state that the mop includes an elongated handle 12, a mop head 14 and an actuation member 16. See col. 2, lines 36 to 39. Mop head 14 is stated to include first and second presser plates 18, 20 mounted to a mounting plate 22. See col. 2, lines 42 to 44. The first and second presser plates 18, 20 are stated to be mounted for pivotal movement relative to the mounting plate 22 at respective pivot points defined by pins 24, 26 located adjacent to the lower end of the mop handle 12. See Fig. 5 and col. 2, lines 44 to 49. Presser plates 18, 20 are stated to be mounted for pivotal movement by pins 24, 26, which are located adjacent to the lower end of the mop handle and which pass through a vertically descending portion of mounting plate 22. See Fig. 5 and col. 2, lines 44 to 49. An actuation yoke 30 is stated to include squeeze arms 36 and 38 for engaging upper surfaces of the presser plates 18 and 20 when the slide grip 32 is moved downwardly along the mop handle 12. See col. 2, lines 57 to 60. One end of each of the squeeze arms 36 and 38 is pivotally connected to the mounting plate 22. See Fig. 5.

Kieson et al. purportedly relate to a multiple head wringer mop. Kieson et al. state that the mop includes an handle 10 and a sponge plate 52. See col. 3, lines 1 to 3. Further, sponge plate 52 is stated to include two triangular shaped sponge plates. See col. 4, lines 58 to 65.

Nowhere does the combination of Courtney et al. and Kieson et al. disclose carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. Therefore, the combination of Courtney et al. and Kieson et al. does not disclose all of the limitations of claim 1.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine,

837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). As indicated above, the combination of Courtney et al. and Kieson et al. disclose carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. Therefore, the combination of Courtney et al. and Kieson et al. does not render obvious claim 1.

The Office Action admits that the Courtney et al. pins 24 and 26 do not serve as a "hinge." See Office Action at p. 3. The Office Action alleges, however, that Kieson et al. disclose carrier wings mounted by a hinge edge. See Office Action at p. 3. The Office Action further alleges that "it would have been obvious for one of ordinary skill in the art to modify the mounting structure of the carrier piece of Courtney et al. so that each wing is mounted by a hinge edge of a center piece as Kieson et al. teach so to have what is known as a 'living hinge' so as to manufacture the entire carrier piece assembly from one unitary piece to save on the cost and time of manufacturing." See Office Action at p. 4.

It is respectfully submitted that the cases of In re Fine, supra, and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), make plain that the Office Action's generalized assertions that it would have been obvious to modify or combine references do not properly support a § 103 rejection. It is respectfully submitted that those cases make plain that the Office Action reflects a subjective "obvious to try" standard, and therefore does not reflect the proper evidence to support an obviousness rejection based on the references relied upon. In particular, the Court in the case of In re Fine stated that:

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. This it has not done. . . .

**Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.**

In re Fine, 5 U.S.P.Q.2d at 1598 to 1600 (citations omitted; italics in original; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. . . .

**Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].**

In re Jones, 21 U.S.P.Q.2d at 1943, 1944 (citations omitted; italics in original).

That is exactly the case here since it is believed and respectfully submitted that the present Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which these cases have indicated does not constitute evidence that will support a proper obviousness finding.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter. Merely stating that it would have been obvious to manufacture the entire carrier piece assembly from one unitary piece to save on cost and manufacturing time does not provide sufficient motivation absent a teaching or suggestion of such a need. See Office Action at p. 4.

The Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a "technologically simple concept" -- which is not the case here -- there still must be some finding as to the "specific understanding or principle within the knowledge of a skilled artisan" that would motivate a person having no

knowledge of the claimed subject matter to “make the combination in the manner claimed,” stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed. In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper prima facie case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (emphasis added). Again, it is believed that there have been no such findings.

Further, given the specifically designed squeezing mechanism disclosed by Courtney et al. Applicant submits that it would not have been obvious to simply include a hinged center piece, as taught by Kieson et al. As indicated above, the presser plates 18, 20 are stated to be mounted for pivotal movement by pins 24, 26, which are located adjacent to the lower end of the mop handle and which pass through a vertically descending portion of mounting plate 22. See Fig. 5 and col. 2, lines 44 to 49. An actuation yoke 30 is stated to include squeeze arms 36 and 38 for engaging upper surfaces of the presser plates 18 and 20 when the slide grip 32 is moved downwardly along the mop handle 12. See col. 2, lines 57 to 60. One end of each of the squeeze arms 36 and 38 is pivotally connected to the mounting plate 22. See Fig. 5. Therefore, mounting plate 22 is specifically configured to allow for pivoting of the plates 18 and 20 and to provide a connection to squeezing arms 36 and 38. A simple replacement of the mounting plate with a hinged plate, as suggested by the Office Action, would interfere with the functioning and connection of the squeezing arms 36 and 38, and thus, would render the device of Courtney et al. unworkable.

In view of all of the foregoing, it is respectfully submitted that the combination of Courtney et al. and Kieson et al. does not render obvious amended

claim 1. Therefore, withdrawal of the 35 U.S.C. § 103(a) rejection and allowance of claim 1 is respectfully requested.

As for claim 2, which depends from claim 1 and therefore includes all of the limitations of claim 1, it is respectfully submitted that the combination of Courtney et al. and Kieson et al. does not render obvious this dependent claim for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra (any dependent claim that depends from a non-obvious independent claim is non-obvious). Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 2 is respectfully requested.

#### **IV. Rejection of Claims 1 and 2 Under 35 U.S.C. § 103(a)**

Claims 1 and 2 were rejected under 35 U.S.C. 103(a) as being obvious over Kieson et al. in view of U.S. Patent No. 3,224,025 ("Altrock"). Applicant respectfully submits that claims 1 and 2 are allowable for at least the following reasons.

Altrock purportedly relates to a scrubbing and polishing device. The scrubbing and polishing device is stated to include a handle 1 and a sponge working element 9.

Nowhere does the combination of Kieson et al. and Altrock disclose carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. Therefore, the combination of Kieson et al. and Altrock does not render obvious claim 1. Accordingly, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 1 is respectfully requested.

As for claim 2, which depends from claim 1 and therefore includes all of the limitations of claim 1, it is respectfully submitted that the combination of Kieson et al. and Altrock does not render obvious this dependent claim for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra. Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 2 is respectfully requested.

#### **V. Rejection of Claims 4 to 7 Under 35 U.S.C. § 103(a)**

Claims 4 to 7 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of Courtney et al., Kieson et al. and U.S. Patent No. 3,271,804

("Tillinghast"). Applicant respectfully submits that claims 4 to 7 are allowable for at least the following reasons.

Amended claim 4 depends from claim 1 and further recites that each mop carrier wing (6) has an interior surface (7) on which the water drain grooves (11) run toward the slanted side edge (8).

Claim 5 depends from claim 4 and further recites that the water drain grooves (11) are arranged parallel one to another.

Claim 6 depends from claim 4 and further recites that the water drain grooves (11) run at an angle to the hinge edge (5).

Claim 7 depends from claim 5 and further recites that the water drain grooves (11) run at an angle to the hinge edge (5).

Tillinghast purportedly relates to a sponge mop and wringer. Tillinghast states that the mop includes hingedly connected plates 21, 22 connected via hinge pin 25. See col. 1, lines 61 to 69. Plates 21, 22 are stated to be provided with slots or openings 27. See col. 2, lines 1 to 2. Bracket 48 on plate 22 and portion 33 on plate 21 are stated to connect to handle 35. See col. 2, lines 9 to 13 and lines 33 to 35. Nowhere does the combination of Courtney et al., Kieson et al. and Tillinghast disclose, or even suggest, carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. The slots or openings 27 in Tillinghast are not water drain grooves and are not configured to guide water in any specific direction. Therefore, the combination of Courtney et al., Kieson et al. and Tillinghast does not render obvious claim 1. Accordingly, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 1 is respectfully requested.

The Office Action alleges that it "would have been obvious for one of ordinary skill in the art to modify the plates of Courtney et al. and Kieson et al. to have the water drain grooves that Tillinghast teaches so as to better wring water from a sponge or absorbent material or for aesthetic purposes." See Office Action at p. 5.

It is respectfully submitted that the present Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which does not constitute evidence that will support a proper obviousness finding.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to

provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter. Merely stating that it would have been obvious to incorporate water drain grooves so as to better wring water from a sponge does not provide sufficient motivation absent a teaching or suggestion of such a need. See Office Action at p. 5.

As for claims 4 to 7, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Courtney et al., Kieson et al. and Tillinghast does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra. Further, the combination of Courtney et al., Kieson et al. and Tillinghast does not disclose, or even suggest, an interior surface (7) on which the water drain grooves (11) run toward the slanted side edge (8), as recited in claim 4, water drain grooves (11) arranged parallel one to another, as recited in claim 5, or water drain grooves (11) running at an angle to the hinge edge (5), as recited in claims 6 and 7. Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claims 4 to 7 is respectfully requested.

**VI. Rejection of Claims 4 to 7 Under 35 U.S.C. § 103(a)**

Claims 4 to 7 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of Kieson et al., Altrock and Tillinghast. Applicant respectfully submits that claims 4 to 7 are allowable for at least the following reasons.

Nowhere does the combination of Kieson et al., Altrock and Tillinghast disclose, or even suggest, carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. The slots or openings 27 in Tillinghast are not water drain grooves and are not configured to guide water in any specific direction. Therefore, the combination of Kieson et al., Altrock and Tillinghast does not render obvious claim 1. Accordingly, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 1 is respectfully requested.

The Office Action alleges that it “would have been obvious for one of ordinary skill in the art to modify the plates of Kieson et al. and Altrock to have the



water drain grooves that Tillinghast teaches so as to better wring water from a sponge or absorbent material or for aesthetic purposes.” See Office Action at p. 6.

It is respectfully submitted that the present Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which does not constitute evidence that will support a proper obviousness finding.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter. Merely stating that it would have been obvious to incorporate water drain grooves so as to better wring water from a sponge does not provide sufficient motivation absent a teaching or suggestion of such a need. See Office Action at p. 6.

As for claims 4 to 7, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Kieson et al., Altrock and Tillinghast does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra. Further, the combination of Kieson et al., Altrock and Tillinghast does not disclose, or even suggest, an interior surface (7) on which the water drain grooves (11) run toward the slanted side edge (8), as recited in claim 4, water drain grooves (11) arranged parallel one to another, as recited in claim 5, or water drain grooves (11) running at an angle to the hinge edge (5), as recited in claims 6 and 7. Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claims 4 to 7 is respectfully requested.

## **VII. Rejection of Claims 4 to 7 Under 35 U.S.C. § 103(a)**

Claims 4 to 7 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of Courtney et al., Kieson et al., and U.S. Patent No. 2,663,039 (“Bagley”). Applicant respectfully submits that claims 4 to 7 are allowable for at least the following reasons.

Bagley purportedly relates to a mop having backing plates for wringing. A mop handle 16 is stated to be connected to supports 2 and 4. See col. 3, lines 18 to 22. Supports 2 and 4 are stated to include openings 14 to facilitate drainage when the mop element is squeezed. See col. 3., lines 11 to 13.

Nowhere does the combination of Courtney et al., Kieson et al., and Bagley disclose, or even suggest, carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. The openings 14 in Bagley are not water drain grooves and are not configured to guide water in any specific direction. Therefore, the combination of Courtney et al., Kieson et al. and Bagley does not render obvious claim 1. Accordingly, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 1 is respectfully requested.

The Office Action alleges that it “would have been obvious for one of ordinary skill in the art to modify the plates of Courtney et al. and Kieson et al. to have the water drain grooves that Bagley, Jr. teaches so as to better wring water from a sponge or absorbent material.” See Office Action at p. 7.

It is respectfully submitted that the present Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which does not constitute evidence that will support a proper obviousness finding.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter. Merely stating that it would have been obvious to incorporate water drain grooves so as to better wring water from a sponge does not provide sufficient motivation absent a teaching or suggestion of such a need. See Office Action at p. 7.

As for claims 4 to 7, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Courtney et al., Kieson et al. and Bagley does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra. Further, the combination of Courtney et al., Kieson et al. and Bagley does not disclose, or even suggest, an interior surface (7) on which the water drain grooves (11) run toward the slanted side edge (8), as recited in claim 4, water drain grooves (11) arranged parallel one to another, as recited in claim 5, or water drain grooves (11) running at an angle to the hinge edge (5), as recited in claims 6 and 7. Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claims 4 to 7 is respectfully requested.

**VIII. Rejection of Claims 4 to 7 Under 35 U.S.C. § 103(a)**

Claims 4 to 7 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of Kieson et al., Altrock and Bagley. Applicant respectfully submits that claims 4 to 7 are allowable for at least the following reasons.

Nowhere does the combination of Kieson et al., Altrock and Bagley disclose, or even suggest, carrier wings including water drain grooves (11) configured to guide water to the slanted side edge (8), as recited in amended claim 1. The openings 14 in Bagley are not water drain grooves and are not configured to guide water in any specific direction. Therefore, the combination of Kieson et al., Altrock and Bagley does not render obvious claim 1. Accordingly, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claim 1 is respectfully requested.

The Office Action alleges that it “would have been obvious for one of ordinary skill in the art to modify the plates of Kieson et al. and Altrock to have the water drain grooves that Bagley, Jr. teaches so as to better wring water from a sponge or absorbent material.” See Office Action at p. 7.

It is respectfully submitted that the present Office Action offers no evidence whatsoever, but only conclusory hindsight, reconstruction and speculation, which does not constitute evidence that will support a proper obviousness finding.

Unsupported assertions are not evidence as to why a person having ordinary skill in the art would be motivated to modify or combine references to provide the claimed subject matter of the claims to address the problems met thereby. Accordingly, the Office must provide proper evidence of a motivation for modifying or combining the references to provide the claimed subject matter. Merely stating that it would have been obvious to incorporate water drain grooves so as to better wring water from a sponge does not provide sufficient motivation absent a teaching or suggestion of such a need. See Office Action at p. 7.

As for claims 4 to 7, which ultimately depend from claim 1 and therefore include all of the limitations of claim 1, it is respectfully submitted that the combination of Kieson et al., Altrock and Bagley does not render obvious these dependent claims for at least the same reasons provided above in support of the patentability of claim 1. In re Fine, supra. Further, the combination of Kieson et al., Altrock and Bagley does not disclose, or even suggest, an interior surface (7) on which the water drain grooves (11) run toward the slanted side edge (8), as recited

in claim 4, water drain grooves (11) arranged parallel one to another, as recited in claim 5, or water drain grooves (11) running at an angle to the hinge edge (5), as recited in claims 6 and 7. Therefore, withdrawal of the 35 U.S.C. § 103 (a) rejection and allowance of claims 4 to 7 is respectfully requested.

**IX. Allowable Subject Matter**

Applicant notes with appreciation the indication of allowable subject matter contained in claim 9. The Examiner will note that claim 9 has been rewritten herein in independent form to include all of the limitations of its respective base claim and any intervening claims. It is therefore respectfully submitted that claim 9 is in condition for immediate allowance.

**X. Allowed Claims**

Applicant hereby acknowledges and thanks the Examiner for the allowance of claims 8 and 10.

**XI. Conclusion**

Applicant respectfully submits that all of the pending claims of the present application are now in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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